UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DATE: APR 2 5 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
United Ethanol LLC, Milton, Wisconsin

FROM: Albana Bega, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Chief
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: United Ethanol LLC

Facility Location: 1250 Chicago St, Milton, Wisconsin

Date of Inspection: February 28, 2019

EPA Inspector(s):
1. Albana Bega, Environmental Engineer
2. Manojkumar Patel, Environmental Engineer

Other Attendees
1. Dan Shickles, Plant Manager, United Ethanol LLC (United Ethanol)
2. Chad Campbell, Chief Operating Officer, United Ethanol
3. Brad Pecora, Environmental Health and Safety Specialist, United Cooperative

Contact Email Address: chadc@unitedethanol.com

Purpose of Inspection: CAA compliance

Facility Type: Ethanol production from corn

Regulations Central to Inspection: SIP, NSPS, MACT

Arrival Time: 09:30

Departure Time: 19:00

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Credentials Presented
☒ CBI warning to facility provided

The following information was obtained verbally from Mr. Campbell unless otherwise noted.

Process Description: United Ethanol (a subsidiary of United Cooperative) is an ethanol production facility that has been in operation since early 2007. The plant is permitted to produce 60 million gallons per year (MGPY) of ethanol from corn and is currently operating at around 50 MGPY. The plant also produces distillers dried grains with solubles (DDGS), carbon dioxide (CO_2), corn oil, and syrup. The plant was designed and built by Delta T but some documents are ICM facility design. United Ethanol utilizes four fermenters, one beer well for fermentation and two drum dryers to produce DDGS from mash. A CO_2 scrubber is used to recover ethanol from the fermentation process and emissions from the ethanol recovery scrubber are controlled by a vent gas scrubber. A regenerative thermal oxidizer (RTO) controls emissions from DDGS drying and the vent gas scrubber. Denatured ethanol is loaded out via both rail and tanker truck. Loadout emissions from tanker truck loading rack are controlled by a flare whereas emissions from railcar tanker loading rack are discharged to atmosphere from an unobstructed vertical discharge point.

United Ethanol employs Saga Environmental and Engineering, Inc. (for reporting) and Trihydro Corporation (for their LDAR program) as environmental consultants.

Staff Interview: In 2014 United Ethanol added a 4th fermenter to the plant and replaced the ring dryer (following a fire) with a drum dryer system. In 2018, United Ethanol added a degassing system to remove CO_2 prior of the distillation process step, and a new cooling tower to increase the capacity of the plant.

TOUR INFORMATION

EPA toured the facility: Yes
The facility was operating normally at the time of inspection.

Data Collected and Observations: The following were observed during the tour:

- DDGS storage area
- Rail ethanol loading station
- Truck ethanol loading station, including flare

- Grain offloading and loading of the DDGS. Two bag houses; one for the grain receiving and one for the DDGS loadout
- Grain storage bins
- Hammermill bag house
- Aeration (corn storage) dust collector
- Process condensate tank
- Slurry tank, liquification tank, fermenters/coolers, heat exchangers
- Beer, rectifier, and stripping columns
- Degasser
- Molecular sieves
- RTO control room
- RTO, CO_2 scrubber, and vent gas scrubber

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Screenshot of the RTO control system (taken)
2. Process flow diagram dated September 29, 2016 (taken)
3. RTO Manual
4. 2018 RTO stack test

CLOSING CONFERENCE

Requested documents:

- 4th Quarter 2018 LDAR weekly pump checks
- 2018 LDAR reports
- LDAR database
- RTO Manual
- 2018 RTO stack test
- 2018 RTO maintenance reports (2)
- Fermentation "age" i.e., fermenters operational times in hours during the 2018 RTO stack test
- Estimated ambient air pulled from the RTO fan

SIGNATURES

Report Author: AZyo Date: 4/24/19

Section Chief: [signature] Date: 4/25/19

Facility Name: United Ethanol LLC
Facility Location: 1250 Chicago St, Milton, Wisconsin
Date of Inspection: February 28, 2019

APPENDICES AND ATTACHMENTS

APPENDIX A: DIGITAL IMAGE LOG

1. **Inspector Name:** Albana Bega and Manojkumar Patel	2. **Date(s) of Inspection:** February 28, 2019
3. **Company/Facility Name:** United Ethanol LLC	4. **Street Address, City, State:** 1250 Chicago St, Milton, Wisconsin
5. **Number of Images:** 16	6. **Archival Record Location:** C:\Users\ABega\OneDrive - Environmental Protection Agency (EPA)\UnitedEthanol-Milton\Photos-Videos

Image Number	File Name	Date and Time (incl. time zone and DST)[1]	Description of Image
1	DC_2096.jpg	3/1/2019 10:58	Bag House DDGS Loadout and Grain Receiving
2	DC_2097.jpg	3/1/2019 10:58	Hammermill Bag House
3	DC_2098.jpg	1/1/2000 0:17	Heat Exchanger
4	DC_2103.jpg	3/1/2019 10:58	Beer, Rectifier and Stripping Columns
5	DC_2104.jpg	3/1/2019 10:58	Degasser
6	DC_2105.jpg	3/1/2019 10:58	Molecular Sieves
7	DC_2106.jpg	3/1/2019 10:58	Molecular Sieves
8	DC_2107.jpg	3/1/2019 10:58	Boiler Plate
9	DC_2108.jpg	3/1/2019 10:58	Boiler Plate
10	DC_2109.jpg	1/1/2000 1:53	Dryer
11	DC_2112.jpg	1/1/2000 2:05	RTO Piping from Dryers, CO2 Scrubber and Vent Gas Scrubber
12	DC_2113.jpg	3/1/2019 10:58	CO2 Scrubber
13	DC_2114.jpg	3/1/2019 10:58	Vent Gas Scrubber
14	MOV_2102.mp4	1/1/2000 6:24	Heat Exhanger
15	MOV_2110.mp4	1/1/2000 8:02	Piping from Dryer to the RTO
16	MOV_2111.mp4	1/1/2000 8:04	Piping from Dryer to the RTO

(1). Date/time listed do not reflect the actual date/time the photo/video was taken (inadvertently the date/time was not set up prior of taking photo/video).